



1st July, 2018

Statement Regarding the *Chibanian*

The Geological Society of Japan
President Hiroki Matsuda

In June last year, a research group consisting of 32 Japanese scientists from 22 institutes submitted a proposal to the International Union of Geological Sciences (IUGS) for the *Chiba Section* (the geological section at Tabuchi, Ichihara, Chiba Pref.) to be recognized as a Global Stratotype Section and Point (GSSP) to define the Lower-Middle Pleistocene boundary. The proposal was subsequently examined at the Working Group on L-M Boundary of the Subcommittee on Quaternary Stratigraphy (SQS) of the International Commission on Stratigraphy (ICS) affiliated to the IUGS. In November 2017, the Working Group voted to approve the *Chiba Section* proposal and the result was reported to the executive committee of the IUGS. The IUGS later announced that a separate group from within Japan has raised objections to the proposal including casting doubt on the value of the scientific data used to support the proposal, and the final decision-making process of the IUGS has been suspended from April this year.

As the largest Japanese academic society dedicated to field-based earth sciences, the Geological Society of Japan (JGS) decided it was important to take a role in this dispute and the Academic Research Section of the JGS undertook an examination of the proposal contents. This statement, for publication on our website, summarizes the results of the examination including a summary of the academic significance of the proposal.

GSSPs are used for correlation between strata of a similar age throughout the world, and when deciding where to define the boundary of past geological ages, it is essential to select a section where strata that include the geological age boundary are continuously exposed and where the relevant stratigraphy has been closely documented using internationally recognized methods. The ICS of the IUGS is responsible for deciding where to place individual GSSPs that are used for many geological age boundaries.

The Chibanian Proposal relates to a subdivision in the youngest geological Period, the Quaternary, and in particular refers to a boundary at about 770 ka between the early and middle Pleistocene. The GSSP for this boundary has not yet been decided. The Chibanian Proposal documents an outcrop at Ichihara, Chiba Prefecture, where strata are continuously exposed, and makes a scientific case for this section to be accepted as the Lower-Middle Pleistocene boundary GSSP. If the Proposal is officially recognized, the geological stage from about 770 to 126 ka will be called the Chibanian.

The final decision concerning approval of the proposed Lower-Middle Pleistocene boundary GSSP and adoption of the name of Chibanian will be made by expert panel members of the IUGS selected from around the world including Japan.

After examining the scientific contents of four academic papers which summarize the scientific basis of the Chibanian proposal, it is the opinion of the JGS that the proposal contents are scientifically well-founded and found no academic problems. We also found no procedural problems with the way the application was carried out. Therefore, we see no reasons to halt the ongoing process and look forward to the final decision being made in the near future based on the scientific judgment of the IUGS.

For inquiries regarding this matter, please send an email to main@geosociety.jp